

Serial No. 10/697,263

AMENDMENTS TO THE CLAIMS

1-23. (canceled)

24. (new) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

- (a) a transcript or cDNA sequence that encodes a polypeptide having an amino acid sequence comprising SEQ ID NO:2;
- (b) SEQ ID NO:1;
- (c) nucleotides 109-5103 of SEQ ID NO:1; and
- (d) a nucleotide sequence that is completely complementary to the nucleotide sequence of (a), (b), or (c).

25. (new) An isolated nucleic acid molecule encoding a myosin light chain kinase, wherein the nucleotide sequence of said nucleic acid molecule consists of a nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence that encodes a polypeptide comprising an amino acid sequence having at least 99% sequence identity to SEQ ID NO:2;
- (b) a nucleotide sequence having at least 99% sequence identity to SEQ ID NO:1;
- (c) a nucleotide sequence having at least 99% sequence identity to nucleotides 109-5106 of SEQ ID NO:1; and
- (d) a nucleotide sequence that is completely complementary to the nucleotide sequence of (a), (b), or (c).

26. (new) An isolated nucleic acid molecule encoding a myosin light chain kinase, wherein the nucleotide sequence of said nucleic acid molecule comprises a nucleotide sequence selected from the group consisting of:

- (a) a transcript or cDNA sequence that encodes a polypeptide comprising an amino acid sequence having at least 99% sequence identity to SEQ ID NO:2;

Serial No. 10/697,263

(b) a nucleotide sequence having at least 99% sequence identity to SEQ ID NO:1;

(c) a nucleotide sequence having at least 99% sequence identity to nucleotides 109-5103 of SEQ ID NO:1; and

(c) a nucleotide sequence that is completely complementary to the nucleotide sequence of (a), (b), or (c).

27. (new) An isolated nucleic acid molecule having a nucleotide sequence comprising SEQ ID NO:1 or the complement thereof.

28. (new) An isolated nucleic acid molecule having a nucleotide sequence comprising nucleotides 109-5103 of SEQ ID NO:1 or the complement thereof.

29. (new) An isolated transcript or cDNA nucleic acid molecule comprising a nucleotide sequence that encodes a polypeptide comprising SEQ ID NO:2, or the complement of said nucleotide sequence.

30. (new) The isolated nucleic acid molecule of claim 24, further comprising a heterologous nucleotide sequence.

31. (new) The isolated nucleic acid molecule of claim 30, wherein the heterologous nucleotide sequence encodes a heterologous amino acid sequence.

32. (new) The isolated nucleic acid molecule of claim 25, further comprising a heterologous nucleotide sequence.

33. (new) The isolated nucleic acid molecule of claim 32, wherein the heterologous nucleotide sequence encodes a heterologous amino acid sequence.

Serial No. 10/697,263

34. (new) The isolated nucleic acid molecule of claim 26, further comprising a heterologous nucleotide sequence.

35. (new) The isolated nucleic acid molecule of claim 34, wherein the heterologous nucleotide sequence encodes a heterologous amino acid sequence.

36. (new) An isolated nucleic acid molecule consisting of a nucleotide sequence that encodes a polypeptide comprising SEQ ID NO:2 in which residue 68 of SEQ ID NO:2 is valine, or the complement of said nucleotide sequence.

37. (new) An isolated transcript or cDNA nucleic acid molecule comprising a nucleotide sequence that encodes a polypeptide comprising SEQ ID NO:2 in which residue 68 of SEQ ID NO:2 is valine, or the complement of said nucleotide sequence.

38. (new) An isolated nucleic acid molecule consisting of a nucleotide sequence that encodes a polypeptide comprising SEQ ID NO:2 in which residue 68 of SEQ ID NO:2 is alanine, or the complement of said nucleotide sequence.

39. (new) An isolated transcript or cDNA nucleic acid molecule comprising a nucleotide sequence that encodes a polypeptide comprising SEQ ID NO:2 in which residue 68 of SEQ ID NO:2 is alanine, or the complement of said nucleotide sequence.

40. (new) An isolated nucleic acid molecule consisting of a nucleotide sequence that encodes a polypeptide comprising SEQ ID NO:2 in which residue 545 of SEQ ID NO:2 is serine, or the complement of said nucleotide sequence.

41. (new) An isolated transcript or cDNA nucleic acid molecule comprising a nucleotide sequence that encodes a polypeptide comprising SEQ ID NO:2 in which residue 545 of SEQ ID NO:2 is serine, or the complement of said nucleotide sequence.

Serial No. 10/697,263

42. (new) An isolated nucleic acid molecule consisting of a nucleotide sequence that encodes a polypeptide comprising SEQ ID NO:2 in which residue 869 of SEQ ID NO:2 is alanine, or the complement of said nucleotide sequence.
43. (new) An isolated transcript or cDNA nucleic acid molecule comprising a nucleotide sequence that encodes a polypeptide comprising SEQ ID NO:2 in which residue 869 of SEQ ID NO:2 is alanine, or the complement of said nucleotide sequence.
44. (new) A vector comprising the nucleic acid molecule of any one of claims 24-43.
45. (new) An isolated host cell containing the vector of claim 44.
46. (new) A process for producing a polypeptide comprising culturing the host cell of claim 37 under conditions sufficient for the production of said polypeptide, and recovering said polypeptide.
47. (new) The vector of claim 44, wherein said vector is selected from the group consisting of a plasmid, a virus, and a bacteriophage.
48. (new) The vector of claim 44, wherein said nucleic acid molecule is inserted into said vector in proper orientation and correct reading frame such that a polypeptide having at least 99% sequence identity to SEQ ID NO:2 is expressed by a cell transformed with said vector.
49. (new) The vector of claim 48, wherein said isolated nucleic acid molecule is operatively linked to a promoter sequence.